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ABSTRACT

At the time of the First Followup Survey, approximately 18 months after graduation, sixty-five percent of the members of the High School Class of 1972 were unemployed, and eight percent were out of work. Forty-two percent were taking academic courses in a college or university. Graduates of the vocational high school curriculum were employed at higher rates than their classmates and least likely to be taking academic courses. Twenty-nine percent of the females were homemakers, and most of those were married or formerly married. Earnings during the study period were similar for blacks and whites, but much greater for males than females. Further details of the educational and economic status of class members, the relation of these to base-year variables, and a discussion of their plans and aspirations are included. (BW)

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Executive Summary

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COMPARATIVE ANALYSIS OF POSTSECONDARY OCCUPATIONAL AND EDUCATIONAL OUTCOMES FOR THE HIGH SCHOOL CLASS OF 1972

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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Executive Summary

1. Introduction

This report is concerned with the members of the High School Class of 1972, especially for the period between their graduation from high school in the early summer of 1972 and the time of the First Followup Survey which was conducted approximately 18 months after graduation.

During this period the U. S. population was increasing, although at a decreasing rate compared to earlier years, with the increases reflected in rural declines and in the growth of small-to-medium cities. Age at first marriage was increasing for women, but declining slightly for men. The birthrate was continuing a steady decline in 1972-73, but the rate of illegitimate births was high, representing 12% of all registered births in 1972.

The divorce rate was at an all-time high, suggesting that the Class of 1972 contained greater proportions of persons from single-parent homes than at any earlier time in the nation's history.

The time period of this study represented a period of uncertain economic recovery from a mild recession and was almost instantly followed by a more severe one. Inflation was regarded as serious and, between the time when most of the Class entered high school and the time of this study, the Consumer Price Index increased 42%. During the 5-year period preceding the study the average weekly earnings of workers actually declined (in constant dollars) owing to reductions in wage rates and

work hours. The labor force participation rates of young workers was on the increase for whites, and females. At the same time, the participation rates of young people who were enrolled in school were also increasing, attaining a rate of 45% in 1973. Of those who were not enrolled in school, 90% were in the labor force.

In contrast to earlier cohorts, relatively large numbers of whites from the Class of 1972 did not go on to college. The increasing enrollment trends of blacks continued, bringing the proportion of blacks enrolled in college up to a par with that for whites. Owing to increases in population size, the declining enrollment rate did not result in appreciable declines in the actual numbers of students enrolled in colleges, and for those who did not go to college, nearly 1/3 could be found in special schools, generally vocational or technical in nature.

This study may be considered an effort to determine what has happened to the Class of 1972 since graduation, especially as regards their educational and economic activities. The development is presented in three parts: first, a description of post-high school activities and characteristics; second a series of analyses relating earlier characteristics to later educational and vocational characteristics; and third, a series of analyses relating earlier plans and aspirations to post-high school outcomes.

2. A Summary of Post High School Activities and Characteristics

At the time of the First Followup Survey, 65% of the Class of 1972 was employed and 8% were out of work. The employment of blacks (58%) was lower than that of whites (66%). Graduates of the vocational high

school curriculum were employed at higher rates than others (77%, compared to 68% for general curriculum graduates and 56% for academic graduates).

Forty-two percent of the Class was taking academic courses in a college or university. Whites (43%) were more likely than blacks (35%) to be taking academic course work, but blacks (16%) were more likely than whites (14%) to be taking vocational or technical postsecondary courses. Graduates of the high school vocational curriculum were least likely to be taking academic courses (13% for vocational graduates, 27% for general graduates, 68% for academic graduates). In general, females tended to take courses of shorter duration than did males.

Twenty-nine percent of the Class females indicated they were homemakers. This activity was most prevalent among Class members from low socioeconomic backgrounds and those of low academic ability. Homemaking varied dramatically according to high school curriculum: only 15% of the female academic graduates were homemakers, compared to 36% of the general graduates and 40% of the vocational graduates. Nearly three-quarters (74%) of the homemakers reported themselves to be married or formerly married. Marriage was less frequent among blacks than whites, but the presence of children among married blacks was more frequent than among married whites.

Earnings during the study period were similar for blacks and whites, but much greater for males than females. The incomes of graduates of the vocational high school curriculum (median income was $3,920) tended to be greater than those of general or academic graduates

(medians of $3,120 and $1,940, respectively), but these results must be tempered by the fact that academic graduates tended not to be in the labor force. The slight income advantage held by vocational graduates was confined to low-range incomes (under $6,000) and the advantage disappeared for higher incomes. Since female Class members tended to marry men older than themselves, and since male Class members tended to marry younger women, the family incomes of married female Class members (median of $7,470) tended to be appreciably greater than those of married male Class members ($4,660). In either case, women contributed approximately 27% of the family's income, except for black females who contributed 36%.

Educational Detail

Sixty-four percent of the Class had experienced some form of traditional educational activity prior to October 1973. For those who did not pursue a formal postsecondary activity, the most frequently cited reason was a desire to earn money; vocational graduates were more likely than others to express this opinion. While many Class members entered some form of postsecondary formal education immediately after high school, others did not, but were enrolled by October 1973. These "stopouts" were compared with "dropouts" (those who were not enrolled either in October 1972 or October 1973). Stopouts were less likely than dropouts to indicate that they had no plans for education past high school, and dropouts were more likely to indicate a desire to marry instead of continuing their educations. Among blacks, dropouts were much more likely

than stopouts to indicate that an attractive job offer was a reason for not continuing their education. Vocational graduates (40%) were much less likely than others to indicate they had participated in any form of postsecondary formal education (general graduates, 52%; academic graduates, 86%).

Fifty-four percent of the respondents indicated taking some form of formal postsecondary activity in October 1972. The rate for whites (56%) was 11% higher than that for blacks. Vocational graduates were least likely to be enrolled in 4-year colleges and universities (17%); the rate for general graduates was twice as large and that for academic graduates four times as large. Two-thirds of the vocational graduates who participated in formal postsecondary education programs were evenly divided between junior or community colleges and vocational-technical institutions.

Economic Detail

Quite a variety of job-seeking methods were used by Class members in an attempt to find employment. On average, somewhat more than 2 methods were used by each respondent. The most frequently used methods were direct application to an employer (used by 67% of jobseekers, 78% of whom were successful), and recourse to friends and relatives (57% used the method, 81% of whom were successful). Blacks were likely to employ a greater number of methods than whites, but were less successful with all methods. The data suggested that employability was constrained for all

but high academic ability blacks.

About one Class member in five (18%) spent more than four weeks on layoff or seeking employment during the year following October 1972. The figure for blacks (29%) was nearly twice that for whites (16%).

On the average, vocational graduates worked a greater number of weeks during the period October 1972-October 1973 than did graduates of other curricula, blacks worked fewer weeks than whites, and females fewer weeks than males.

Twenty-nine percent of the Class indicated they had received some form of job-specific training during high school. This figure was 37% for females (20% for males) and 35% for blacks. Vocational graduates expressed much higher rates--51% for males and 72% for females. Females, blacks, high ability and high socioeconomic status respondents were more apt than others to have had an opportunity to apply these skills on the job. Vocational graduates, however, had lower rates of application, relative to rates at which they received job-specific training, than did graduates of other curricula.

Employed respondents, on the average, were very mildly positive about their jobs. Blacks were slightly less satisfied with their jobs than were whites; however, when job satisfaction data were controlled for ability, SES, and other variables, the situation reversed to indicate a slightly greater satisfaction level among blacks than among whites.

Between October 1972 and October 1973, the proportion of the Class which was employed increased 7%. Employment gains were greater in the

high ability/high SES sectors of the population, possibly reflecting the completion of schooling and subsequent entry into the labor market. Of those who were unemployed in October 1972 or in October 1973, only 20% indicated that they actively looked for work during those periods; the rate for blacks, however, was twice as high as for whites (38% to 17%). Estimated labor force participation rates increased by 5% overall, over the year, but increased more for high ability respondents (11%), high SES respondents (11%), and female academic graduates (12%). The estimated unemployment rate of the Class dropped 3% over the year (6% for blacks and females from the academic and vocational curricula).

The jobs held by employed Class members tended to fall into only 7 categories: salesman (9%), clerical (30%), craftsman (14%), operator (13%), labor (9%), and service (15%) occupations. Both sexes participated in each of these occupational clusters with the exception of craftsman and labor which were confined to males. Blacks were present in most categories, but were less frequently found in salesman positions.

Sixty-two percent of those employed in October 1972 were working more than 31 hours per week; in October 1973 the figure had risen to 70%. Median weekly earnings in October 1973 were $91 overall, $111 for males, $76 for females. There was no appreciable racial wage rate differential. 1973 wage rates were about 23% higher than those of 1972 (29% for males, 19% for females). These increases overcame the inflation rate which then prevailed, but the annual earnings of the typical Class

member (under $3,000) provided little economic security.

3. Relations of Activity States to Earlier Variables

A number of activity states were defined to represent the activities of the Class during the period of the study. Of these, five predominated by incorporating most of the Class. These five were: (a) 4-year college or university enrollment; (b) 2-year college enrollment; (c) vocational-technical school enrollment; (d) working; and (e) not working (including homemaking). The definition of these activity states involved a sequential classification system in order to establish mutually exclusive groupings; thus, a person enrolled in a 4-year college would be classified under that heading even if working full time. A respondent would be classified as "not working" only if he belonged to no earlier-mentioned state, e.g., enrolled in some kind of school or working.

The use of the sequential activities grouping procedure allowed a clear differentiation among groups on two bases. First, a large number of variables gathered during the 1972 Base Year Survey had means which differed significantly by primary activity state. Second, a series of multiple group, multiple discriminant functions successfully discriminated the groups on the basis of variables gathered during the 1972 Base Year Survey. Although separate analyses were conducted by race, by sex, and by high school curriculum, the results tended to be highly similar across all analyses. The first two discriminant functions always accounted for practically all variation among groups. The first discriminant function

tended to separate groups by activity state. This function generally consisted of ability, achievement variables, and home environment variables (such as parental expectations for the offspring's educational future). The dominant variables all had the same sign, implying that they acted in concert to differentiate adjacent activity states. For example, high academic ability, high secondary school grades, and high parental educational expectations tended to characterize those in 4-year colleges. Slightly lower values of these variables tended to characterize those enrolled in 2-year schools. Successively smaller values of these variables tended to characterize, successively, vocational-technical school enrollees, workers, and nonworkers.

The second discriminant function always served to discriminate the particular sample subgroups on demographic bases--blacks from whites, males from females, vocational from general and academic graduates. While the nature of the function varied according to the particular sample subgroups involved in the analysis, the second function typically was characterized by a balancing of competing forces. For example, high mathematical ability and projected educational level, compared to grades and projected occupational level were more characteristic of males, while lower mathematical ability and projected educational level, compared to grades and projected occupational level were more characteristic of females. Interpretation of these analyses suggests that a primary determiner of whether one engages in postsecondary education, or works, or does neither depends upon the amount of academic ability and

the degree of educational orientation possessed by the respondent; those who are high in these qualities tend to pursue postsecondary educations, lower ones work, and still lower ones do neither.

The decision to enroll in postsecondary education was further explored in two analyses which attempted to predict enrollment status. The first employed a number of base year variables to predict enrollment status. Results indicated that enrollment was positively associated with a set of cognitive variables (mostly measuring academic ability), the respondent's level of educational aspirations and plans, participation in the academic high school curriculum, the level of family educational expectations for the respondent, the family educational level, and number of years in the community. An exception was found for respondents who were enrolled in vocational or technical schools; these tended to be lower on family aspirations, compared to academic ability and family background variables, than were nonstudents. Low level of family aspirations for the respondent's continued education, relative to the respondent's self-assessed ability to complete college, the family education level, and the respondent's projected educational level appeared to be a distinctive factor separating vocational-technical school enrollees from those not enrolled. Race, per se, was not found to be a significant determinant of enrollment status.

The second analysis associated with the prediction of enrollment status employed an econometric model which first was used simultaneously to fit two basic equations, one of which related to demand for education while the other related to labor force participation. The strongest

predictor developed by this analysis related to financial need, and reflected a tendency for those with large financial needs not to be enrolled in postsecondary education. The second strongest variable, the desire for postsecondary education, positively related to enrollment. For whites, but not for blacks, earlier participation in the high school academic curriculum was associated with postsecondary school enrollment. Family socioeconomic status variables did not relate to enrollment, perhaps owing to the more direct effects of financial need and educational desire. Family income was found to be a factor relating to whether a respondent would be enrolled both in October 1972 and October 1973; larger family incomes were associated with continuance of education, especially for blacks. The concern for finances, as related to postsecondary school attendance, employment, and other areas, was thematic for blacks, at least when compared to whites. The model was then reduced by removing the requirement for simultaneous fitting of the employment-oriented equation. The reduced model was then refitted using the same variables, with results suggesting that participation in the academic curriculum, academic ability, and family socioeconomic status do relate to enrollment, and to continuance of enrollment as well.

Employment status was also examined using regression procedures and the econometric model. The former suggested that race, sex, and ability were related to employment. Those employed tended to be white, male, and of higher ability and lower levels of personal and family educational aspirations. The full econometric model reiterated the basic school-vs.-work decision by suggesting that those who were not

enrolled in school, and those having high financial needs tended to be workers. The reduced econometric model (removing the requirement for a simultaneous fit with the educational enrollment equation) indicated that graduates of the academic high school curriculum were less likely than others to be employed. A third analysis was derived as a component of a path analysis. The results suggested that both academic achievement and race were factors--higher achievement and being white were positively related to employment status.

Attempts to predict wage rates were generally unsatisfactory, and there was reason to believe that wage rates do not depend on characteristics of the individual other than sex (females were paid lower wages than males). It was found that higher wages were associated with lowered job satisfaction.

4. The Fulfillment of Plans and Aspirations

While there were numerous exceptions, the plans made by the respondents during high school tended to be realized during the period of the study. For example, 91% of those who had planned to attend a 4-year college were in some form of postsecondary school, as were about 3/4 of those who had planned to attend a 2-year college. Fifty-seven percent of those who had planned to attend a vocational-technical postsecondary school went on to some form of postsecondary education, 48% in vocational-technical schools. In general, of those who planned postsecondary educational activities, academic graduates were most likely to realize their plans.

Of those who planned full-time work, vocational graduates were most likely to realize their plans. Sixty-six percent of the vocational graduates who planned full-time work were either working full time, in on-the-job training programs, or in apprenticeship programs, compared to 38% of the general graduates and 36% of the academic graduates.

Blacks with postsecondary educational plans actualized them at lower rates than whites. A similar pattern held for employment. In every category not calling for further education, proportionally more blacks than whites were enrolled in school, again reflecting the lower rate of plans actualization of blacks. Twenty-six percent of the blacks who had planned to work full time were actually doing so, compared with 42% of the whites.

An analysis was undertaken to relate background characteristics of the respondents to the realization/nonrealization of their plans. Two components of these analyses dealt with the realization/nonrealization of planned school enrollment. The first component, conducted by stepwise regression, indicated that those who planned postsecondary school enrollment tended to realize their plans when they were characterized by high academic ability, good high school grades, high parental educational expectations, and when their projected educational levels were high. While family income was a factor for blacks in the realization of enrollment plans (it was not for whites), race, per se, did not appear to be a factor. The second component of analysis was derived from a path analysis, and indicated that agreement with best friend (a variable not included in the stepwise regression) was also important. This

analysis also indicated that low achievers tended not to realize their plans for enrollment.

Realization/nonrealization of plans for employment during the year after high school were analyzed by stepwise regression. The results indicated that planned full time employment was most often realized by respondents characterized by high academic ability, good high school grades, and the male sex. Ability and grades were more strongly predictive of realization of employment plans for blacks than for whites. For whites, but not for blacks, participation in the high school vocational curriculum was associated with the realization of plans for full-time employment.

Levels of Plans and Aspirations

A series of analyses were directed toward the examination of levels, and changes in levels over time, of the respondents' general plans, educational plans and aspirations, and vocational plans.

The average level of educational aspirations of males (slightly more than two years of postsecondary education) was slightly greater than that of females (who preferred slightly less than two years). The aspirations of blacks were slightly higher than those of whites. Of the three curriculum groups, the educational aspirations of vocational graduates were lowest. As expected, the levels of educational plans and aspirations, and of vocational plans were all lower than they had been while the respondents were in high school.

Regressive prediction of the current level of educational aspirations resulted in an association between current aspiration level and the earlier levels of educational plans and aspirations, together with some effect due

to the level of parental educational expectation for the respondent. The earlier educational plans of the respondents predicted later educational aspirations better than earlier educational aspirations. The ability measures obtained during high school predicted current educational aspirations better than they had predicted the same aspiration during high school.

The level of educational plans during the First Followup was slightly lower than the level of educational aspirations in each major subgroup of the sample. The level of educational plans of blacks was indistinguishable from that of whites. Parental educational expectations, and the respondent's earlier educational plans and aspirations were the best predictors of the current level of educational plans. A relatively weak predictor, level of father's education, was the strongest family characteristic found to be associated with current level of educational plans. High school characteristics were poor predictors.

Vocational plans for males, in terms of planned occupational status, were higher than those of females; those of blacks were slightly higher than those of whites. Vocational plans of academic graduates were markedly higher than those of general graduates which, in turn, were slightly higher than those of vocational graduates. Parental educational expectations for the respondents, and the respondents' earlier vocational plans and aspirations were the best predictors of the current level of vocational plans. Ability variables were also effective predictors, and were more directly related to level of vocational plans than to educational aspirations and plans. As for educational plans, level of father's educa-

tion was the most powerful family variable and school characteristics were unimportant as predictors of the level of vocational plans.

Changes in Levels of Plans and Aspirations

Between high school and the time of the First Followup Survey a number of changes in levels of plans and aspirations were observed. Level of educational aspirations declined overall, but declined least for academic graduates. Whites declined more than blacks and females declined more than males. Level of educational plans declined also, but less than did aspirations. The pattern of decline was similar to that for educational aspirations, except that no curricular variation was found. A race x sex interaction indicated that black males tended to decline less than white males, while there was no appreciable racial difference between females.

The level of vocational plans, represented as status of planned occupation, declined overall, but declined least for academic graduates. The level for females declined markedly more than for males, and that for whites slightly more than that for blacks. A sex x curriculum interaction was found which indicated that the level of vocational plans for male vocational and general graduates increased while that of academic male graduates declined; among females, those of general and academic graduates declined slightly, but that of vocational graduates declined drastically.

Respondents with high socioeconomic status backgrounds, those receiving more parental encouragement, and those from schools in higher socioeconomic neighborhoods were least likely to undergo a change in their educational and occupational decisions. The prediction of decision change was best

made by ability variables; other variables were weak. Changes in general plans, educational plans, and educational aspirations were found to be associated with changing of schools during the followup period, and to be associated with withdrawal from training programs prior to completion. Changes in level of vocational plans were related to changes in field of study in school during the current period. The results of this analysis reiterated the lower rates of plans realization by blacks, compared to whites. Where plans were not realized, the current activity tended to be at a lower level than that originally planned. Females tended to drop to lower levels than males, and vocational graduates showed the least discrepancy. The analysis also detected a sex x race interaction which suggested that black males actualize their plans at much lower levels than white males, with little difference between levels of black and white females.

Dimensions of Postsecondary Activity

A large number of variables were factor analyzed in order to describe parsimoniously the patterns of postsecondary activities of the Class. Two such analyses were performed in order to establish both educational and vocational dimensions of activity.

A total of 8 dimensions of postsecondary educational activity were found, but only two of these, Educational Ambition and School Persistence were found in all three curriculum groups.

A total of 4 dimensions of postsecondary vocational activity were found. Three of these, Work and Earnings, Steady Employment, and Job Adjustment were found in similar form in all three curricular groups.

An attempt was made to predict the outcome dimensions using base year variables associated with levels of educational plans and aspirations, general plans and aspirations, and parental expectations. Among the educational outcome factors, only Educational Ambition was well predicted for all three curriculum groups. Attempts to predict vocational outcome dimensions were successful only for the factor Work and Earnings.

Predicting 1973 Outcomes with 1972 Outcomes

The search for relevant criterion variables for future activity concluded with an examination of the relationships between October 1972 outcome measures and October 1973 outcomes. Two 1972 variables were found to have strong relevance for 1973 educational outcomes. These were school attendance shortly after high school graduation and level of school attended in October 1972; both variables are predictively valid for a wide variety of later outcomes and ambitions.

Three occupational criterion variables were found: hours worked per week in 1972, amount earned in 1972, and number of weeks worked in 1972. These variables were predictively valid for similar variables in October 1973, and related negatively to educational activities.

Whether these short-term criteria will apply as well in later years remains to be examined in future NLS follow-up data.